ANNISTON ARMY DEPOT

Environmental Management System Implementation at Anniston Army Depot

April 8, 2004

Presentation Overview

- Anniston Army Depot's (ANAD) Mission
- ANAD Vision for EMS Implementation
- Integrated EMS
  - EMS elements/roles
  - Sustainability concepts
  - EMS/sustainability/P2 functional relationships
    - Environmental policy
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    - Environmental programs
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Anniston Army Depot (ANAD) Overview

- Mission: rebuild combat tracked vehicles and weapons
  - 4.4 million pounds of hazardous waste in 2003
  - 5400 employees
  - $552M operating budget
  - $1,446M facility value
  - $138M equipment value
  - 1,763 buildings & structures
  - 266 miles of road

ANAD's Vision for EMS Implementation

- Depot wide implementation of an ISO 14001 certified EMS
- Integrated with sustainable operations, Pollution Prevention (P2), and Health and S

Roles for the Integrated EMS Elements

- **Sustainability:** provide the strategic environmental vision for the Depot
- **EMS:** provide organizational infrastructure
- **P2, Health and Safety:** carry out specific actions for the sustainability based EMS.

Elements of the Integrated EMS

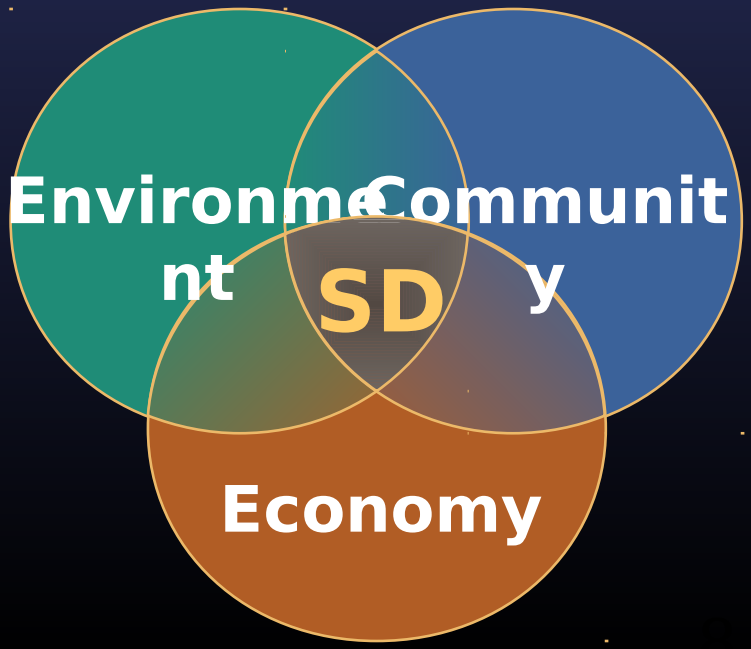
- **Plan**
  - Policy
  - Objectives
  - Action Plans
- **Do**
  - Implement Action Plans
  - Day to Day Operations
- **Check**
  - Evaluate Current Conditions
  - Review Progress against Objectives
- **Act**
  - Identify Revisions based on results of Check

Functional Relationships Summary

	Sustainability	EMS	P2
Policy	•Establishes policy	•Establishes policy	•Supports policy
Current Conditions Evaluation	•Periodic baseline assessments	•Annual aspect identification •Annual progress review	•Periodic baseline assessment
Objectives and Targets	•Establishes objectives and targets	•Establishes and updates objectives and targets	•Supports objectives and targets
Environmental Programs	•Identifies and evaluates program opportunities	•Identifies existing and new program opportunities	•Identifies and evaluates program opportunities
Continuous Improvement	•Not applicable	•Conducts annual system review and plan update	•Not applicable

Sustainability Concepts

- Adapted Natural Step and Natural Capitalism Sustainability Requirements
  - Decrease the use of nonrenewable resources/ utilize renewable substitutes
  - Minimize material use and waste/ radically increase efficiency
  - Minimize the negative impact on the environment and restore past impacts
  - Meet the needs of stakeholders
  - Invest in Natural Capital



Environmental Policy

As one of the largest military depot facilities in the world, Anniston Army Depot (ANAD) recognizes the importance of its role as an environmental steward. ANAD is strongly committed to long-term sustainability, improved mission performance, and environmental protection using the following core principles:

- Conservation of resources through pollution prevention;
- Compliance with environmental and safety laws and regulations;
- Continuous improvement through incorporation of an Environmental Management System (EMS) into our everyday business practices;
- Protection of natural and cultural resources; and
- Restoration of affected natural resources.

Current Conditions Evaluation: Baseline Assessment

- Comparison of Baseline Methods
  - Only EMS requires the evaluation of aspects
  - Stand alone sustainability and P2 assessments develop project specific baselines
  - EMS requires annual assessment of progress against objectives and targets
- The Depot's Integrated Approach
  - Sustainability and Health and Safety will be included in aspect evaluation
  - ANAD will take a sustainability/P2 baseline approach for developing its annual EMS progress assessment

Current Condition Evaluation: Aspect Identification

- Identify Environmental, Sustainability, Health and Safety Aspects (partial list)
  - Air emissions
  - Hazardous waste generation
  - Energy consumption or conservation
  - Raw material consumption or conservation
  - Natural resource degradation or conservation
  - Cultural resources degradation or conservation
  - Generation of heat, light or other radiation
  - Noise or physical health and safety hazard

Current Conditions Evaluation: Aspect Ranking Tool

ENVIRONMENTAL MANAGEMENT SYSTEM (EMS)								
Building ------>	113 - Tank Fire Control/ Electronics Shop							Clear
Functional Area ------->	Industrial operations							RANK
Process	Activity / Aspects	Environmental	Mission	Regulatory	Community	Health & Safety	Total	Aspect Ranking
Abrasive blast	Walnut hull blasting / Noise or physical health and safety hazard	Insignificant	Severe	Compliant	Insignificant	Severe	3.4	Very High
	Walnut hull blasting / Hazardous waste generation	Moderate	Severe	Compliant	Insignificant	Insignificant	3.3	Very High
Assembly / disassembly	Disposing of rad waste from tritium testing (Night Vision) / Hazardous waste generation	Moderate	Serious	Compliant	Mild	Mild	3.25	High
Painting	Painting / Air emissions	Mild	Severe	No requiremen	Insignificant	Moderate	3.15	High
Abrasive blast	Walnut hull blasting / Air emissions	Insignificant	Severe	Compliant	Insignificant	Insignificant	3	High
	Walnut hull blasting / Energy consumption or conservation	Insignificant	Severe	No requiremen	Insignificant	Insignificant	2.7	Medium
Painting	Painting / Solid waste generation	Mild	Mild	BMP	Insignificant	Insignificant	2.3	Medium
Washing / cleaning	Pressure Washing / Wastewater	Insignificant	Moderate	Compliant	Mild	Insignificant	2.2	Medium
Assembly / disassembly	Using sprays/aerosol cans / Air emissions	Insignificant	Insignifican	No requiremen	Insignificant	Insignificant	1.7	Medium
Assembly / disassembly	Using sprays/aerosol cans / Recycling/Laundering	Insignificant	Insignifican	No requiremen	Insignificant	Insignificant	1.7	Low
Assembly / disassembly	Surface cleaning with Acetone/ Alcohol/ Ketone/Flux cleaner / Air emissions	Insignificant	Insignifican	No requiremen	Insignificant	Insignificant	1.5	Low
Painting	Taping and masking / Solid waste generation	Insignificant	No impact	No requiremen	Insignificant	Insignificant	1.45	Very Low

Current Condition Evaluation: Significant Aspects

- The Depot's Significant Aspects and Process
  - Hazardous waste generation
    - Abrasive blast
    - Assembly/disassembly
    - Ground Water Intercept Station (GWIS)
    - Painting and dip vat operations
  - Air emissions
    - Dip vats
    - Dynamometers
    - Abrasive blast
  - Surface water discharge
    - Industrial Wastewater Treatment Plant (IWTP)
    - Sewage Treatment Plant (STP)

Current Condition Evaluation: Significant Aspects (cont'd)

- The Depot's Significant Aspects and Process
  - Solid waste generation
    - IWTP
    - STP
  - Uncontrolled releases to the ground
    - Chrome plating operations
  - Physical safety concerns
    - Excessive noise and heat
      - Abrasive blast and welding operations
  - Wastewater generation
    - Steam cleaning operations

Objectives and Targets: Comparison of Views

- Comparison of Views on Objective and Targets
  - EMS develops and reviews objectives and targets relative to its significant aspects
  - Sustainability is holistic and develops long-term strategic objectives and targets
  - P2 and Health and Safety support existing objectives and targets (i.e. Executive Orders, DoD requirements)
- The Depot's Integrated Approach
  - Objectives and targets will be long-term and strategic.
  - Sustainability goals developed by other processes will be incorporated into the EMS.

Objectives and Targets: Solid Waste Example

- Objective: Maximize the diversion of ANAD annual solid waste production.
  - Divert 40% of the annual solid waste production from landfills and incineration in accordance with current requirements.
  - Divert 60% of the annual solid waste production from landfills and incineration by 2015.

Objective and Target: Health and Safety Example

- Maintain a system of worker protections that minimizes risks to employee health and safety.
  - On a continuous basis, identify, rank, and implement viable opportunities for using engineering controls and material substitution…
  - Maintain employee monitoring for all work tasks with significant health and safety risks.
  - Monitor the effectiveness of the program…

Environmental Programs: Comparison of Views

- Comparison of Views on Environmental Programs
  - Sustainability and P2 identify new programs and provide technical evaluations.
  - EMS identifies existing and new programs.
- The Depot's Integrated Approach
  - Sustainability is built into the policy, aspect, and objective elements so the EMS programs support sustainability.

Environmental Programs: Comparison of Views (cont.)

- The Depot's Integrated Approach (cont.)
  - New programs identified through the EMS process will be assigned to P2 or other working groups for technical evaluation and implementation.
  - Programs initiated outside the EMS process will be incorporated into the EMS.

Environmental Programs: Solid Waste Example

EXHIBIT 2
Plan of Action for achieving the increase in solid waste recycling objective

EMP Number	Plan of Action	Responsibility/ POC	Initiation Date	Duration
SW1	Continue to operate current material recycling and reutilization program.	DCFA / Thelma McCullough	On-going	On-going
SW2	Hire a contractor to conduct a solid waste stream assessment.	DRK / Tracy Williams	On-going	On-going
SW4	Follow CIP plan of action to replace existing IWTP and STP.	DRK / Tim McGuirk	On-going	On-going

Continuous Improvement

- Sustainability, P2, and Health and Safety do not have a mechanism for continuous improvement.
- Sustainability, P2, and Health and Safety benefit from incorporation into the EMS annual continuous improvement cycle.
- EMS eliminates redundancy, increases connectivity, and the rigor of its approach by being integrated.

Summary

- ANAD will have an ISO 14001 Certified EMS that is integrated with its Sustainability, P2, and Health and Safety Programs
- Integration will occur primarily in the following areas
  - Policy
  - Current Conditions Evaluations
  - Objectives
  - Environmental Programs
  - Continuous Improvement

Questions?